Potentilla nivea L.

snow cinquefoil Roseaceae (Rose Family)

Status: State Sensitive

Rank: G5S2

General Description: Adapted from Hitchcock et al. (1961): *Potentilla nivea* is a perennial herb with a branched crown and short rootstocks, more or less covered with short, soft, wooly hairs and usually grayish throughout, except for the leaves that are often greenish and covered with straight coarse, stiff hairs on the upper surface. The stems are 1-1/8 to 8 in. (3-20 cm) tall. The alternate leaves are divided into three leaflets, which are egg-shaped to oblong, ¼ to 1-1/3 in. (0.5-3.5 cm) long, and 5 to 11-toothed from nearly halfway to the midvein. The inflorescence is a compact to open cluster of 1 to 9 stalked flowers with evident bracts. The calyx is silky-hairy to somewhat tomentose, with 5 lanceolate, 1/8 in. (3-5 mm) long lobes that alternate with 5 small bracts that are linear-lanceolate and shorter than the calyx lobes. The yellow petals are heart-shaped and 1/16 in. (1-2 mm) longer than the sepals.

Identification Tips: Within its range, *Potentilla nivea* may be confused with *P. quinquefolia* (also a rare plant) and *P. uniflora*. Both *P. nivea* and *P. uniflora* have 3 leaflets versus *P. quinquefolia*, which usually has 5 leaflets. *P. nivea* can be distinguished from *P. uniflora* by its inflorescence which is comprised of 1 to 9 stalked flowers, whereas the inflorescence of *P. uniflora* is comprised of 1 (to rarely 2 or 3) stalked flowers. The phenology of *P. nivea* is slightly longer (June through August) than that of *P. uniflora* (June through July). A technical key is recommended for identification

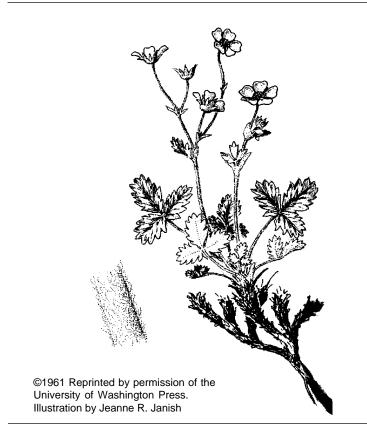
Phenology: This species was observed flowering and fruiting in Washington from July through late August.

Range: This species is known from Alaska to Newfoundland, north to Greenland and Eurasia and south throughout the Rocky Mountains to New Mexico and Nevada. In Washington it occurs in Okanogan County.

Habitat: This species is found in alpine scree, fellfields, meadows and dry rocky ridge tops, from 7200 to 8076 feet (2195-2462 m) elevation. Associated species at one or more sites include: dwarf mountain fleabane (*Erigeron compositus*), alpine yellow fleabane (*E. aureus*),

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Known distribution of Potentilla nivea in Washington



- Current (1980+)
- O Historic (older than 1980)

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eight-petal mountain-avens (*Dryas octopetala*), varileaf cinquefoil (*Potentilla diversifolia* var. *diversifolia*), viviparous knotweed (*Polygonum viviparum*), matted saxifrage (*Saxifraga bronchialis* var. *austromontana*), moss campion (*Silene acaulis*), prairie lupine (*Lupinus lepidus*) and alpine smelowskia (*Smelowskia ovalis*).

Ecology: This taxon prefers rocky substrates and tends to be codominant in the alpine meadows where it occurs.

State Status Comments: There are less than twenty known occurrences of *Potentilla nivea* in Washington.

Inventory Needs: Appropriate habitats in the Okanogan National Forest in Okanogan County should be surveyed for additional populations. Known occurrence sites should be revisited for updated population information.

Threats and Management Concerns: Threats include sheep grazing.

References:

Hitchcock, C.L., A. Cronquist, M. Ownbey, J.W. Thompson. 1961. Vascular Plants of the Pacific Northwest Part 3: Saxifragaceae to Ericaceae. University of Washington Press, Seattle, WA. 614 pp.

Kartesz, J.T. & C.A. Meacham. 2003. Synthesis of the North American Flora, Version 2.0.

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